

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Four Maps Showing Lithologic Distributions
of Selected Parts of the Jurassic San
Rafael Group and Related Units, Utah,
Colorado, Arizona, and New Mexico

By

J. C. Wright

Open-File Report 78-572

1978

This report is preliminary and has not been
edited or reviewed for conformity with U.S.
Geological Survey standards.

Four maps showing lithologic distributions of selected parts of the Jurassic
San Rafael Group and related units, Utah, Colorado, Arizona, and
New Mexico

By J. C. Wright

These four maps were compiled prior to 1960. The author's work was interrupted by assignments to other projects and publication was further delayed by his untimely death in 1968. They are being released at this time because of the renewed interest in the uranium potential of Jurassic age rocks.

The maps are based largely on work done by J. C. Wright and D. D. Dickey between 1956 and 1958. Numerous sources of information were used such as drill holes, measured sections, and literature. These maps are one product of the studies of Jurassic rocks by Wright and Dickey. Other reports previously published include the following:

Craig, L. C., and Dickey, D. D., 1956, Jurassic strata of southeastern Utah and southwestern Colorado, in Geologic economic deposits of east-central Utah: Intermountain Association of Petroleum Geologists Guidebook, 7th Annual Field Conference, 1956, p. 93-104, 3 figs.

Dickey, D. D., and Wright, J. C., 1959, Semiannual reports to AEC on San Rafael (Entrada) studies, in Geologic investigations of radioactive deposits--semiannual progress report, June 1 to November 30, 1958: U.S. Geological Survey TEI-750, p. 59-65.

Schultz, L. G., and Wright, J. C., 1963, Bentonite beds of unusual composition in the Carmel Formation, southwest Utah, in Short papers in geology, hydrology, and topography: U.S. Geological Survey Professional Paper 450-E, p. 67-72.

Wright, J.C., and Dickey, D. D., 1957, Semiannual report to AEC on San Rafael (Entrada) studies, in Geologic investigations of radioactive deposits--semiannual progress report, December 1, 1956, to May 31, 1957: U.S. Geological Survey TEI-690, p. 351-354.

____ 1958a, Semiannual report to AEC on San Rafael (Entrada) studies, in Geologic investigations of radioactive deposits--semiannual progress report, December 1, 1957, to May 31, 1958: U.S. Geological Survey TEI-740, p. 139-146.

____ 1958b, Pre-Morrison Jurassic strata of southeastern Utah, in Geology of Paradox basin: Intermountain Association of Petroleum Geologists Guidebook, 9th Annual Field Conference, 1958, p. 172-181, 7 figs.

____ 1958c, Upper Jurassic strata of the Colorado Plateau as a record of tectonic history in the eastern Great Basin [abs.]: Geological Society of America Bulletin, v. 69, no. 12, pt. 2, p. 1667.

____ 1959, Semiannual reports to AEC on San Rafael (Entrada) studies, in Geologic investigations of radioactive deposits--semiannual progress report for December 1, 1958, to May 31, 1959: U.S. Geological Survey TEI-751, p. 61-66.

____ 1963a, Relations of the Navajo and Carmel Formations in southwest Utah and adjoining Arizona, in Short papers in geology, hydrology, and topography: U.S. Geological Survey Professional Paper 450-E, p. 63-67.

____ 1963b, Block diagram of the San Rafael Group and underlying strata in Utah and part of Colorado: U.S. Geological Survey Oil and Gas Investigations Chart OC-63.

Wright, J. C., Shawe, D. R., and Lohman, S. W., 1962, Definition of members of the Entrada Sandstone in east-central Utah and west-central Colorado: American Association of Petroleum Geologists Bulletin, v. 46, p. 2057-2070.

The San Rafael Group consists of the following units, listed in their relative positions, youngest at top:

Bluff Sandstone, Junction Creek Sandstone, Wanakah Formation

Summerville Formation

Curtis Formation, Todilto Limestone

Entrada Sandstone

Carmel Formation

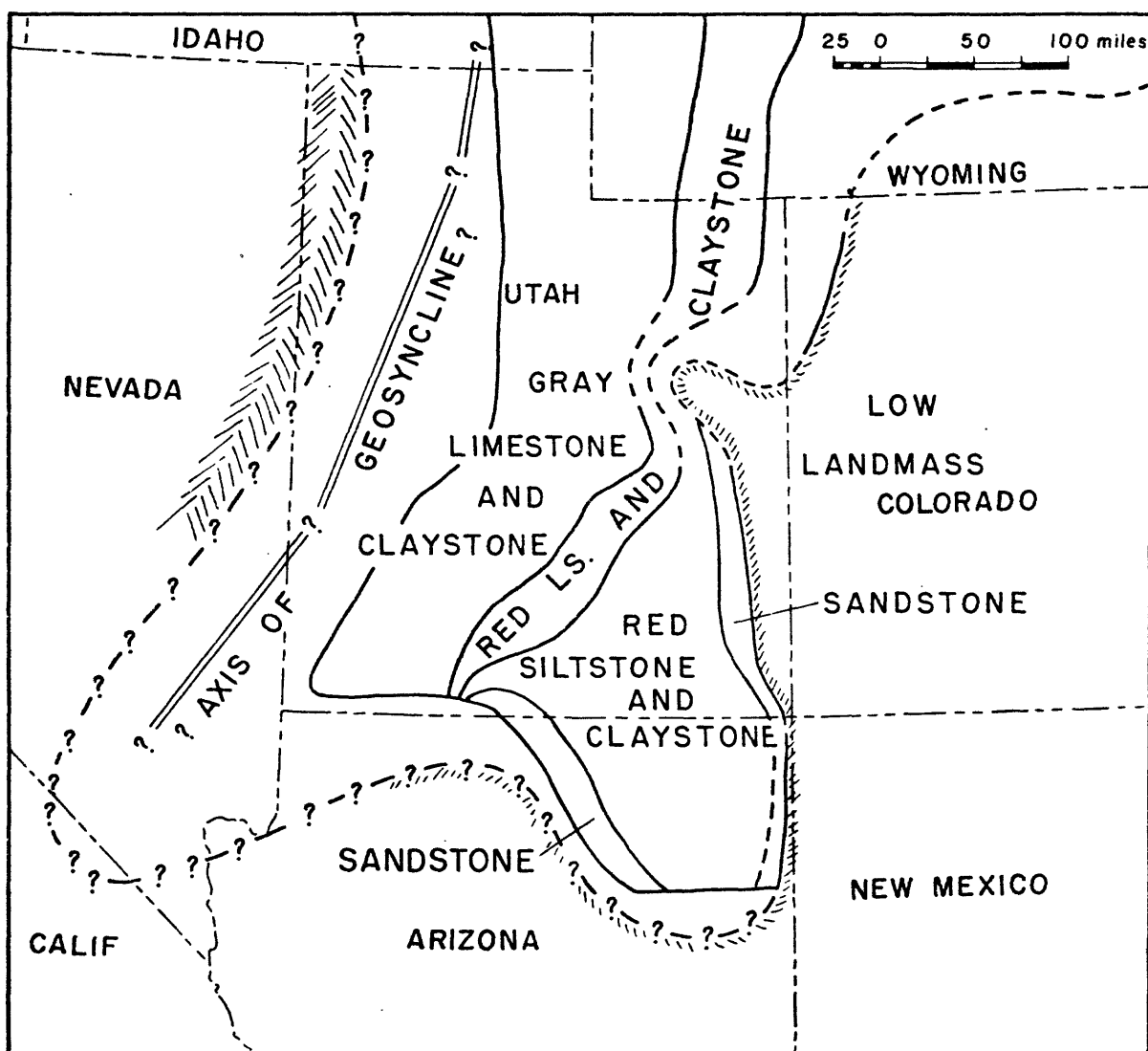


Figure 1.--MAP SHOWING THE CARMEL FORMATION IN PARTS OF UTAH, COLORADO, ARIZONA, AND NEW MEXICO
 Drawn by J. C. Wright in 1959.

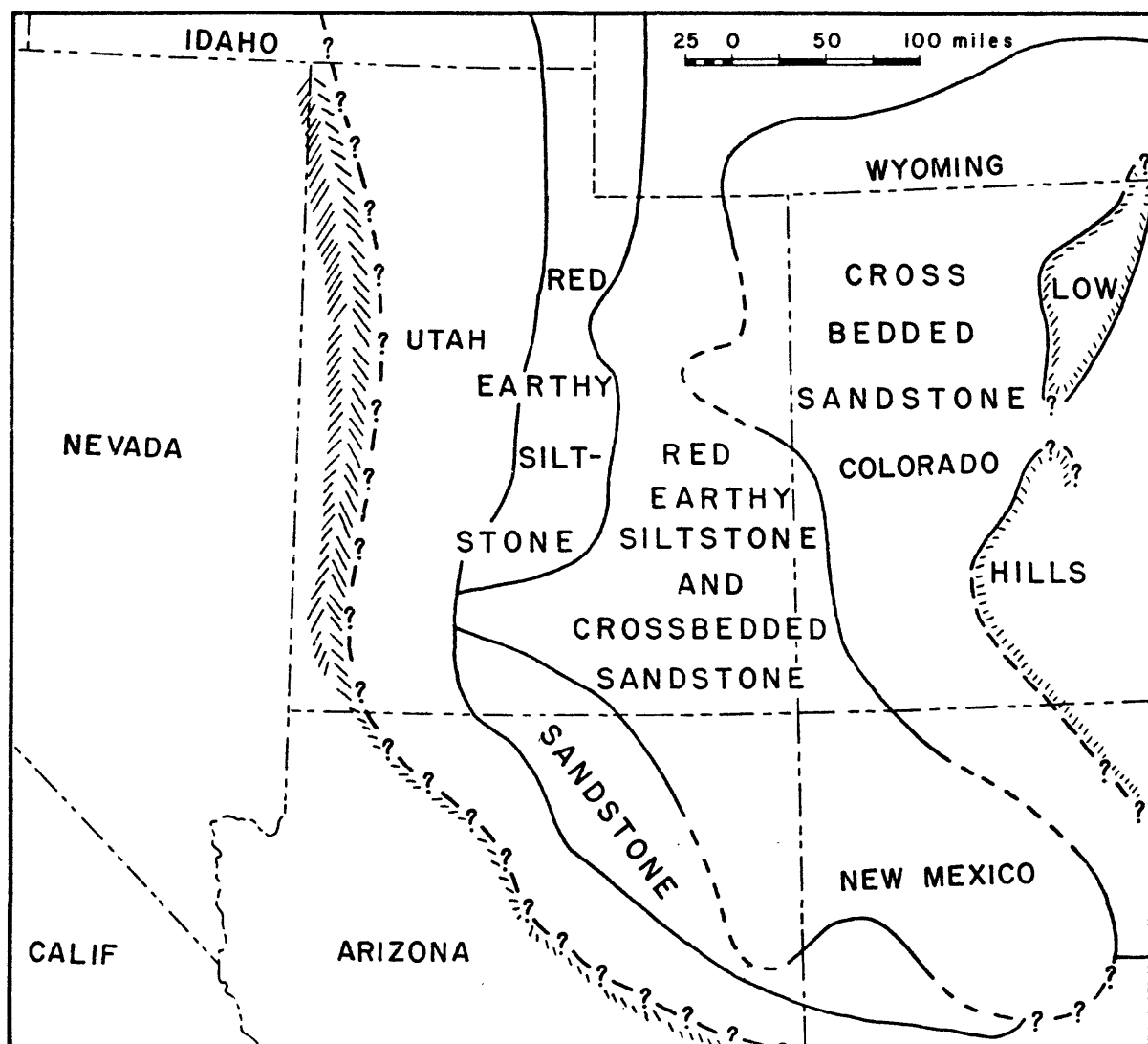


Figure 2.--MAP SHOWING THE ENTRADA SANDSTONE IN PARTS OF UTAH, COLORADO, ARIZONA, AND NEW MEXICO

Drawn by J. C. Wright in 1959.

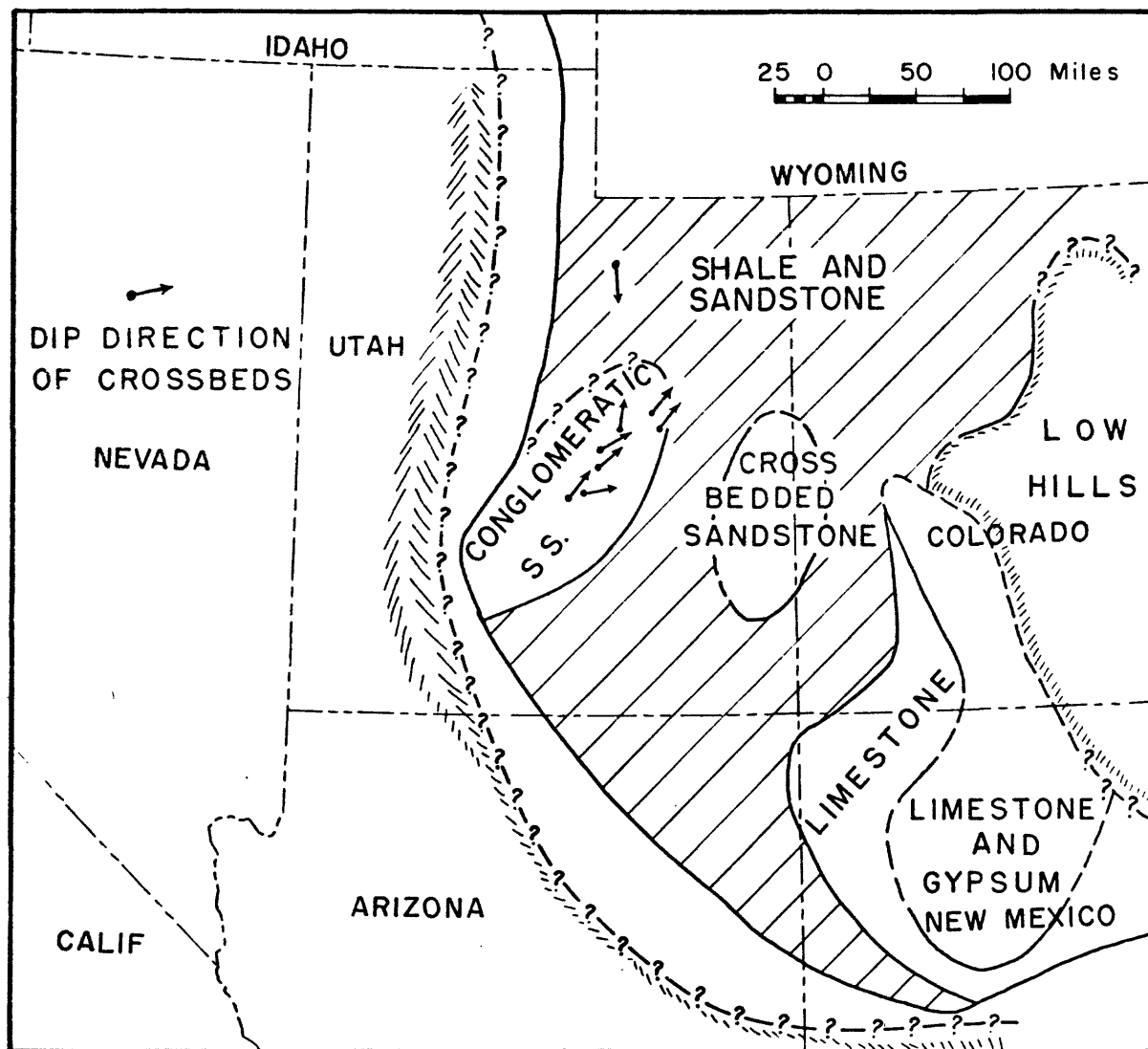


Figure 3.--MAP SHOWING DEPOSITS AT OR UNDER THE BASE OF THE CURTIS AND SUMMERVILLE FORMATIONS AND RELATED UNITS IN PARTS OF UTAH, COLORADO, ARIZONA, AND NEW MEXICO

Drawn by J. C. Wright in 1959.

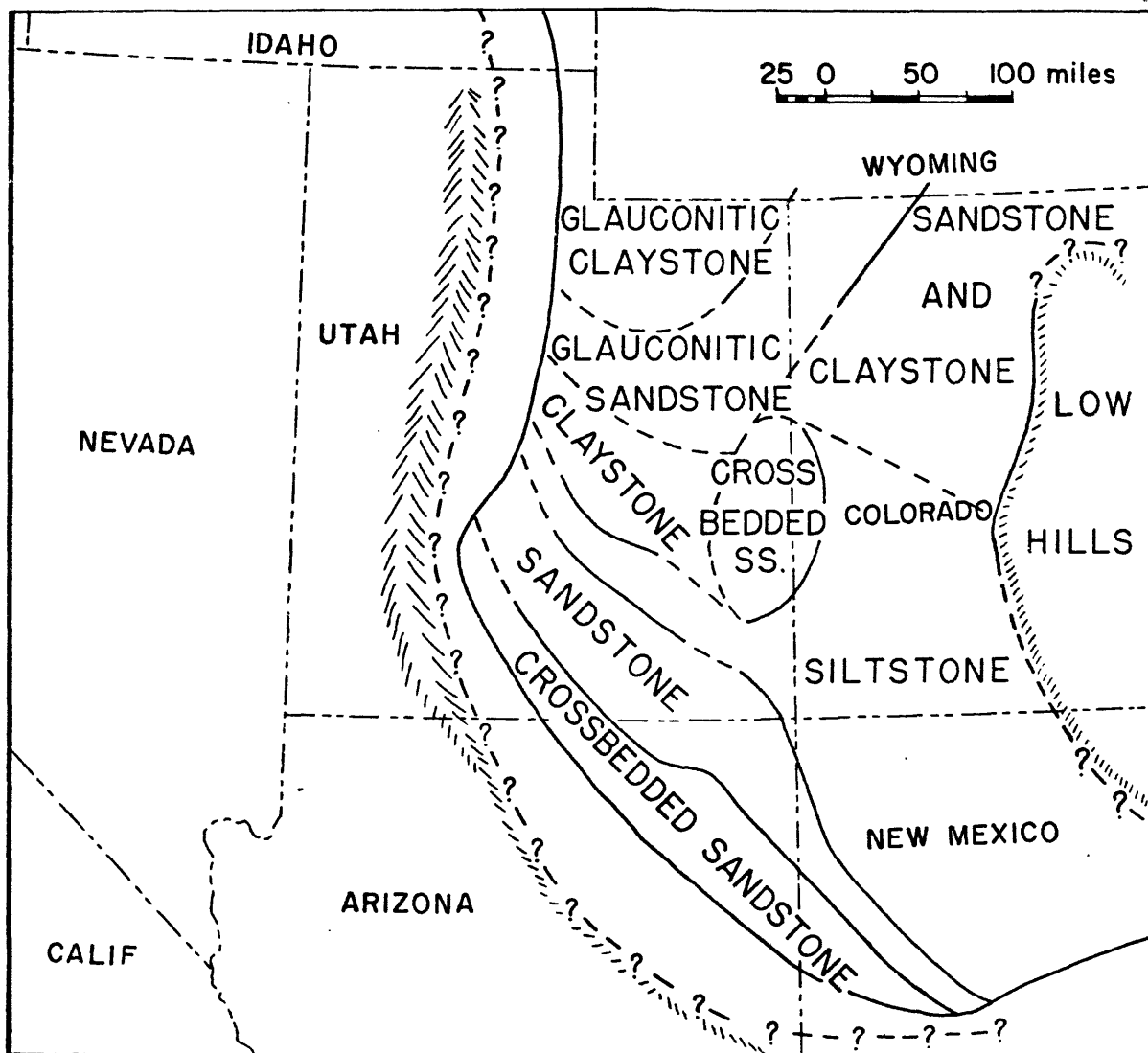


Figure 4.--MAP SHOWING DOMINANT LITHOLOGY OF THE CURTIS AND SUMMERVILLE FORMATIONS AND RELATED UNITS IN PARTS OF UTAH, COLORADO, ARIZONA, AND NEW MEXICO

Drawn by J. C. Wright in 1959.